

REMARKS

Claims 1 and 3-7. Claims 1 and 7 are amended herein.

No new matter has been added by way of the present submission. For instance, claims 1 and 7 have been amended to clarify that the presently claimed natural rubber contains substantially no proteolytic enzyme or its decomposed products. Support for this limitation may be found in the present specification at page 11, lines 8-10. Thus, no new matter has been added.

Additionally, no new issues have been raised that would require additional search and/or consideration on the part of the Examiner. For instance, the Examiner's Interview Summary clearly suggests that Applicants rely upon some structural attribute possessed only by the claimed natural rubber, and not possessed by the prior art rubbers. Therefore, the claims have been amended as discussed above. The Examiner therefore is not presented with the burden of additional search and/or consideration since such a limitation was clearly contemplated. Therefore, no new issues have been raised.

In the event that the present submission does not place the application into condition for allowance, entry thereof is respectfully requested as placing the application into better form for appeal.

Comments on the Substance of the Interview

Applicants take this opportunity to thank the Examiner and the Examiner's Supervisor for the courtesies extended during the Interview conducted on September 1, 2009. During the interview the outstanding "new matter" and "prior art" rejections were discussed. The substance of the interview was substantially as reported in the Interview Summary dated September 9, 2009.

In view of the following remarks, the Examiner is respectfully requested to withdraw all rejections and allow the currently pending claims.

Issue under 35 U.S.C. § 112, first paragraph (New matter)

The Examiner has rejected claims 1 and 3-7 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. Applicants respectfully traverse this rejection.

The Examiner asserts that the present specification discloses only a final product of natural rubber without allergic proteins which cause Type I allergy, but not for the starting material of natural rubber latex. Apparently the Examiner believes that the fact that the final product does not contain the proteins does not exclude the possibility that such proteins were already absent in the starting material. Applicants remind the Examiner that this issue was discussed during the September 1, 2009 Interview and agreement was tentatively reached pending Applicants full explanation on the record.

Applicants stress that due to the fact that the natural rubber product according to the present invention was designed to remove proteins which cause Type I allergies, by implication, the starting material would contain such proteins. The background of the present specification explains that natural rubber latex has a protein with a specific molecular weight and the protein is connected with Type I allergy. See page 1, line 7-12, page 4, lines 4-9, page 10, line 32-page 11, line 4, and page 11, line 33-page 12, line 7 of the present specification. The indicated disclosures clearly suggest that a natural rubber as a starting material has allergic proteins which cause Type I allergy. Thus, those of skill in the art would understand that the inventors were aiming to remove such proteins from natural rubber sources containing the proteins and not from natural

rubber sources not containing the proteins. Simply put, there is no need to remove such a protein if it is already absent.

Regardless, additional support exists in the present specification. First, Applicants point out that the disclosure at page 11, line 33 to page 12, line 7 clearly supports the conclusion that the protein specified by bands 14, 31 and 45 kDa are substances which cause Type I allergy. Second, in review of the examples and specifically Example 1, Applicants point out that in Figure 2, Lane 2, which corresponds to Example 1, no protein showing the bands of 14, 31 and 45 kDa were present. However, pointing to Lane 4, which was an extract from the serum of fresh latex, these bands are clearly present. Thus, the fresh latex source for the natural rubber of the present invention contained proteins at bands 14, 31 and 45, which according to the disclosure at pages 11-12, cause Type I allergy.

Accordingly, the limitation added to claims 1 and 7 in the Amendment submitted on February 17, 2009 does not add new matter. Reconsideration and withdrawal of this rejection are thus respectfully requested.

Issues Under 35 U.S.C. § 103(a)

The Examiner has rejected claim 1 under 35 U.S.C. § 103(a) as being obvious over Cornish, U.S. Patent No. 5,580,942 (hereafter Cornish '942) in view of Hamada et al., Japanese Patent Publication 2001-122906 (hereafter JP '906) as evidenced by Cornish et al., Enc. Poly Sci and Tech., 2004 John Wiley and Sons, (hereafter Cornish et al.)

The Examiner has also rejected claim 7 under 35 U.S.C. § 103(a) as being obvious over Cornish '942 in view of JP '906 as evidenced by Cornish et al.

Lastly, the Examiner has rejected claims 3-6 under 35 U.S.C. § 103(a) as being obvious over Cornish '942 in view of JP '906 as evidenced by Cornish et al. and further in view of Tanaka et al., U.S. Patent No. 6,355,407 (hereafter Tanaka '407).

Applicants respectfully traverse each of the above rejections.

The Present Invention

Independent claim 1 relates to a natural rubber which contains proteins having a molecular weight of more than 14 kDa, substantially no proteolytic enzyme and its decomposed compounds and substantially no proteins specified by the bands of 14, 31 and 45 kDa by SDS-PAGE and having a nitrogen content of 0.02 to 0.30 % by weight of natural rubber, said natural rubber originating from natural rubber latex containing allergic proteins, which allergic proteins cause Type I allergy.

Independent claim 7 is directed to a natural rubber which at least contains proteins having a molecular weight of 6.6 kDa to 200 kDa but substantially no proteolytic enzyme and its decomposed compounds and substantially no proteins specified by the bands of 14, 31 and 45 kDa by SDS-PAGE and which has a nitrogen content of 0.02 to 0.30 % by weight of natural rubber, said natural rubber originating from natural rubber latex containing allergic proteins, which allergic proteins cause Type I allergy.

Distinctions Between the Present Invention and the Cited Art

During the Interview conducted on September 1, 2009, Applicants stressed that the prior art did not utilize the same natural rubber source as the present claims. Thus, the resultant products are different. However, it was suggested that a structural difference be argued.

Accordingly, Applicants have amended the claims to reflect the fact the natural rubber contain substantially no proteolytic enzyme and its decomposed compounds.

This limitation is significant in the context of the Examiner's rejection and the cited art. Specifically, the Examiner's rationale for rejecting independent claims 1 and 7 is that even though Cornish '942 fails to disclose the claimed nitrogen content (e.g., "a nitrogen content of 0.02 to 0.30 % by weight of natural rubber" as recited in both claim 1 and claim 7), JP '906 nonetheless discloses such a nitrogen content.

However, the deproteinized natural rubber of JP '906 is produced by using a proteolytic enzyme in JP '906, thus, any natural rubber obtained by combining Cornish '942 and JP '906 will consequently also contain the proteolytic enzyme or its decomposed compounds. Therefore, the above-noted phrase clearly distinguishes claims 1 and 7 from the cited art. Further, this limitation is a structural limitation of the natural rubber in claim 1 and claim 7. Claims 3-6, which depend directly or indirectly upon claim 1 are likewise distinct.


In view of the above, Applicants submit that the present application is in condition for allowance. The Examiner is therefore requested to withdraw all rejections and allow the currently pending claims.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Craig A. McRobbie, Reg. No. 42,874, at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.17; particularly, extension of time fees.

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Respectfully submitted,

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